UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/288,856	04/09/1999	TETSURO NAGATSUKA	0557-4645-2	\7945

			EXAMINER
22850	7590	11/30/2004	RIMELL, SAMUEL G

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ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/288,856	NAGATSUKA ET AL.
	Examiner	**Art Unit**	
	Sam Rimell	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-3,7-25 and 42-50* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) *12, 14-25, 44, 46-49* is/are allowed.
6) ☒ Claim(s) *1-3,7-11,13,42,43,45 and 50* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
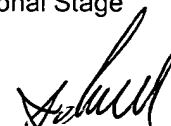8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)
1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____ .
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 7-9 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7 and 50: Each of claims 1, 7 and 50 have been amended to first recite "a designating means designating a portion of the items" and then a subsequent reference to converted data that is "corresponding to items designated". Since a "portion of the items" may be as few as one single item, it conflicts with the later quotation which requires that multiple items be designated.

Claims 2-3 and 8-9: Claims 2-3 depend from claim 1 and claims 8-9 depend from claim 7.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7-11, 13, 42, 43, 45, 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Numata (U.S. Patent 5,943,669).

Claim 1: Reference is made to FIG. 1, and its associated discussion at col. 5, line 42 through col. 6, line 28. Numata discloses inputting means (document storage section 1);

designating means (classification unit designation section 2) which designate specific sections of a document; converting means (fundamental vector generation section 4) which parses the document into the discrete sections designated by the designating means (2) and generates fundamental vectors, which are the converted data; and classifying means (classification section 8) which classifies the document using the converted data. A display means is provided by the display section (10) and its supporting programming (blocks 12a, 12b, 12c).

Claim 2: Numata discloses a document vector producing means (vector synthesis section 6 and composite vector maintenance section 7) which produces, combines and stores synthesized feature vectors that are used by the classification section in classifying the document.

Claim 3: Col. 5, line 54 states that the converting means (4) partitions the documents by means of the classification units. FIG. 12 illustrates the inclusion of symbols, such as "title", "head" and "body" which illustrate the partitioned sections.

Claim 7: See remarks for claim 1.

Claim 8: See remarks for claim 2.

Claim 9: See remarks for claim 3.

Claim 10: FIG. 1 of Numata discloses input means (1) for inputting a document, analysis means (3) for analyzing the content of a document; vector producing means (4, 5) for generating two types of document vectors; transforming function calculating means (equation 18 shown at col. 25, line 67), vector transforming means (6), classification means (8) for classifying the document and classification result storing means (9). Note that the transforming function calculating means (equation 18 at col. 25, line 67) will produce a dimensional number (T) that is

different from the dimensional numbers (F, G and H) that represent vectors input into the equation.

Claim 11: Any of the formulas (18) or (19) illustrated in col. 25, line 67 through col. 26, line 11 read as the inner product calculating means. Without detail on what formula is actually used to perform the calculation, any mathematical formula utilizing the feature vectors would read on this phrase.

Claim 13: Numata discloses vector storing means (7). The transforming function is part of the computer program that classifies the document. Thus, whichever system is storing the computer program is also storing the transforming function.

Claim 42: See remarks for claim 10.

Claim 43: See remarks for claim 11.

Claim 45: See remarks for claim 13.

Claim 50: See remarks for claim 1. Claim 50 only differs from claim 1 in its recitation of "items which are irrespective of chapters, clauses, sentences and paragraphs of the document.." This recitation has been indicated as being new matter, and has not been considered.

Claims 12, 14-25, 44 and 46-49 are allowable over the prior art of record.

Remarks

Applicant's arguments and amendments have been considered.

Claims 1, 7 and 50: Applicant argues that within the Numata reference, the fundamental generation section provides data corresponding to all of the data in the document, rather than a portion of the document data. Examiner agrees that the fundamental vector generation system

does provide data for the entire document, which includes individual portions of the document. However, as long as Numata teaches the concept of providing data for <u>at least a portion of the document</u>, which it does, it will anticipate the claim. It is also observed that the phrase "portion of the items" in claim 1 could refer to all the items in the document, since a 100% portion of items in a document is an entire document.

<u>Claims 10 and 42</u>: Applicant argues that Numata differs from these claims because in equation (18), the vector T has the same number of dimensions as the vectors G, H and J since the vector T is obtained by summing the vectors G, H and J. Thus, T, G, H and J all have the same dimensional number.   However, the difference between examiner's position and applicant's position involves the interpretation of the term "dimensional number". The term "dimensional number" is not defined or discussed in the original specification, leaving the term subject to broad interpretation. Examiner takes the interpretation that the term "dimensional number" as being numbers that make up the vector itself (i.e. the numbers within the vector itself). When the vector addition of equation (18) is performed, the numbers within vector T are transformed by the equation (the transforming function). Applicant appears to hold the view that the term "dimensional number" refers to the number of dimensions in the vector (i.e. the number of values in the vector). While this is another plausible interpretation it is not the broadest interpretation allowed by the given claim language. It is further noted that even if applicant were to clarify the claim and specifically state the dimensional number refers to the number of values in the vector, such feature would probably be considered as obvious, since the concept of adding vectors and producing vectors with a different number of dimensions is well known in the mathematics of vector addition.

This office action is not made final.

Any inquiry concerning this communication should be directed to Sam Rimell at

telephone number (703) 306-5626.

Sam Rimell
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